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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/700,956

10/31/2003

William D. Holland

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EXAMINER

RODRIGUEZ, ARMANDO

ART UNIT

PAPER NUMBER

2828

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

01/05/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/700,956

Applicant(s)

HOLLAND, WILLIAM D.

Examiner

ARMANDO RODRIGUEZ

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 14-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12, 14-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

In view of the Appeal Brief filed on October 10, 2006, PROSECUTION IS
HEREBY REOPENED. New grounds of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the
following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply
under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed
by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and
appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth
in 37 CFR 41.20 have been increased since they were previously paid, then appellant
must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by
signing below:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that
form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public
use or on sale in this country, more than one year prior to the date of application for patent in the United
States.

Claims 1-4, 6-10, 12, 14-16, 18-44 are rejected under 35 U.S.C. 102(b) as being anticipated by Genovese (US 5,750,986).

Regarding claim 1,

Figure 2 illustrates a laser scanning apparatus (24) including light sources (150, 151), a scanning device (158), which scans the light beams onto photoreceptor (10) [applicant's photoconductor], a sensor network (106) [applicant's start-of-scan detector], which as illustrated provides a start of scan and controls the beam intensity [applicant's drive level] via data source & laser driver (152).

Regarding claims 2, 36,

Figure 2 illustrates a data source & laser driver (152) [applicant's control system], which receives a signal from sensor network (106).

Regarding claim 3,

Column 5 lines 60-63, discloses the data source & laser driver (152) may originate from a computer [applicant's processing circuitry].

Regarding claims 4, 39, 43,

Figure 2 illustrates controlling the intensity of the bema via the data source & laser driver (152) [applicant's control system], where it is inherent for the drive level to be maintained at a predetermined level.

Regarding claims 6, 17, 20, 27,

Column 6 lines 44-50, describes enabling one of the laser diodes in order to provide the optical flux to generate the start-of-scan, which implies sampling only once and prior to writing the scan line of information.

Regarding claim 7,

Figure 2 illustrates a rotating polygon (158).

Regarding claims 8, 21, 28,

Figure 2 illustrates sensor network (106) [applicant's start-of-detector] outside the photoreceptor (10) [applicant's photoconductor].

Regarding claims 9, 14, 16, 18, 22, 23, 25, 40, 42,

Figure 2 illustrates a laser scanning apparatus (24) including laser diodes (150, 151) [applicant's light sources], a scanning device (158), which scans the light beams onto photoreceptor (10) [applicant's photoconductor], a sensor network (106) [applicant's start-of-scan detector], which as illustrated provides a start of scan and controls the beam intensity [applicant's drive level] via data source & laser driver (152). Figure 2 illustrates a data source & laser driver (152) [applicant's control system], which receives a signal from sensor network (106). Figure 2 illustrates controlling the intensity of the bema via the data source & laser driver (152) [applicant's control system], where it is inherent for the drive level to be maintained at a predetermined level.

The method of claims 22, 23, 25, 40, 42 are anticipated in light of figure 2.

Regarding claims 10, 15,

Laser diodes (150, 151) are illustrated emitting light in a single direction.

Regarding claims 12, 24,

Column 3 lines 6-10, describes a beam intensity circuit for producing an electrical, which is a measure of the difference of the two laser beams, which implies comparison.

Regarding claims 19, 33,

Column 4 lines 25-26 discloses laser diodes (150, 151) in figure 2.

Regarding claims 29, 30, 44,

Figure 2 illustrates a laser scanning apparatus (24) including laser diodes (150, 151) [applicant's light sources], a scanning device (158), which scans the light beams onto photoreceptor (10) [applicant's photoconductor], a sensor network (106) [applicant's start-of-scan detector], which as illustrated provides a start of scan and controls the beam intensity [applicant's drive level] via data source & laser driver (152). Figure 2 illustrates a data source & laser driver (152) [applicant's control system], which receives a signal from sensor network (106). Figure 2 illustrates controlling the intensity of the bema via the data source & laser driver (152) [applicant's control system]. Column 5 lines 45-53 discloses the use of substrate, such as paper to form the permanent image [applicant's image engine].

Regarding claim 31,

Figure 2 illustrates a laser scanning apparatus (24) including light sources (150, 151), a scanning device (158), which scans the light beams onto photoreceptor (10) [applicant's photoconductor], a sensor network (106) [applicant's start-of-scan detector], which as illustrated provides a start of scan and controls the beam intensity [applicant's drive level] via data source & laser driver (152). Column 5 lines 60-63, discloses the data source & laser driver (152) may originate from a computer [applicant's processing circuitry].

Regarding claim 32,

Figure 2 illustrates controlling the intensity of the beam via the data source & laser driver (152) [applicant's control system], where it is inherent for the drive level to be maintained at a predetermined level.

Regarding claims 34, 35, 37, 38, 41,

Figure 2 illustrates laser diodes (150, 151) generating the photons or light.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 5, 11, 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Genovese (US 5,750,986) in view of Vincent et al (US 5,745,152).

Genovese discloses in column 4 lines 25-26 figure 2 including laser diodes (150, 151), but is silent as to the laser diodes being vertical cavity surface emitting laser (VCSEL).


However, it is well known in the art to use VCSEL in laser scanning devices, as described in column 1 lines 20-23 and illustrated in figure 1, where a laser scanning unit includes an array of VCSEL (4).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ARMANDO RODRIGUEZ whose telephone number is 571-272-1952. The examiner can normally be reached on 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MINSUN HARVEY can be reached on 571-272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


ARMANDO RODRIGUEZ
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AR


JACK CHIANG
SUPERVISORY PATENT EXAMINER